


 The logo for Peter Mac, featuring the name 'Peter Mac' in a cursive script with a stylized 'M' that has three vertical bars extending upwards from its top.

# Information sheet: Robotic-Assisted Laparoscopic Radical Prostatectomy

This information sheet is to provide you and your family with information regarding your treatment and recovery from a robotic assisted laparoscopic radical prostatectomy. This sheet only describes the standard care and average recovery time. Your plan of care will be adapted to suit your specific needs.

This leaflet gives you information about having robotic-assisted surgery to treat your prostate cancer - referred to as a robotic assisted laparoscopic radical prostatectomy. It explains why this operation may be suitable for you and what you can expect. It also outlines the advantages, possible risks and the most common questions raised by patients. More detailed information is available from your surgeon or specialist nurse if you wish.

Also please refer to our website [www.petermac.org/roboticsurgery](http://www.petermac.org/roboticsurgery) for up-to-date information.

## **What is a radical prostatectomy?**

A radical prostatectomy is the name of an operation to treat localised prostate cancer (cancer that has not spread outside the prostate gland). It is performed under a general anaesthetic, which means you are asleep for the whole procedure.

The operation involves removing your prostate gland, seminal vesicles (glands that store semen) and possibly local blood vessels, nerves and lymph nodes. Removing these structures may increase the likelihood of removing all the cancer cells. The urethra (tube that carries urine through the penis and out of the body) is severed during the operation and then re-attached to your bladder.

Radical prostatectomy procedures have been carried out at the Peter Mac for many years. Traditionally they are performed through 'open surgery' - where an incision (cut) of about 10-15cm is made to the abdomen (tummy). Since 2010, they have also been performed using robotic-assisted laparoscopic (keyhole) surgery.

## **What is robotic-assisted laparoscopic surgery?**

Robotic-assisted surgery is a technique that uses a robotic console (the daVinci® S HD surgical system) to help your surgeon during the operation.

A high magnification (x10) 3D camera allows your surgeon to see inside your abdomen. This is attached to one of the three arms on the robotic console and is inserted into your abdomen through one of the keyholes. The other robotic arms can hold various instruments, which your surgeon will use to carry out the operation. The instruments are smaller (about 8mm) than those used for open surgery. Because of the robotic console and 3D camera, your surgeon can carry out a precise operation in a much smaller space, so a large incision is not needed.

Your surgeon is in the same room as you, but stands further away from you during the procedure and controls the robotic arms to perform the operation. It is important to understand that the robot is not performing the surgery. The surgeon still carries out the procedure, but the robotic console allows more controlled and precise movements during the operation.

The daVinci® system has been used extensively throughout the United States and Europe and is commonly used in private hospitals in Australia.

## **What are the advantages of robotic surgery compared to open surgery?**

Robotic surgery results in:

- Less blood loss: Blood loss is typically about 200-300mls for robotic-assisted surgery, whereas in an 'open' prostatectomy it can be considerably more. Therefore, the risk of needing a blood transfusion is much less with robotic-assisted surgery.
- Less pain after the operation: This is because there is no large abdominal wound. Patients rarely need strong painkillers and can return to normal activities and to work sooner than after open surgery.
- A shorter stay in hospital. Most patients go home the day after robotic-assisted surgery compared to an average of four or five nights after open surgery.
- Smaller scars. Robotic-assisted surgery avoids the large scar from open surgery, although you will have a number of smaller scars instead.
- Nerve-sparing surgery: As with traditional open surgery, it is possible in selected patients to preserve the nerves which allow men to have erections. Many surgeons now believe that using robotic surgery improves the likelihood for these nerves to be preserved. As with open surgery, there are a number of factors which influence the ability of men to have erections after radical prostatectomy and your specialist will discuss these with you.

## **What are the disadvantages of robotic surgery?**

This operation needs specialised training, as the surgeon is unable to 'feel' your tissues or organs as in open surgery. Although rare (less than 1% risk), for some patients it may be necessary to convert to traditional laparoscopic or open surgery for technical reasons.

## **What else should I consider before surgery?**

If you decide to have surgery we shall discuss whether or not to try and preserve the nerves and blood vessels ("neurovascular bundles") attached to the side of the prostate. These contribute to normal erections. Although some form of erectile dysfunction is inevitable following a prostatectomy, preserving the neurovascular bundles makes the ability to have normal erections following surgery more likely.

Nerve preservations can only be done if there is no clear sign of cancer at the edge of the prostate next to the neurovascular bundles. Overall, preserving the neurovascular bundles increases the chance of leaving some cancer behind. Your surgeon will discuss with you whether to attempt nerve preservation and the risks involved in this.

Men less than 60 years of age who have good erections before surgery and who have the neurovascular bundles preserved during surgery are most likely to recover erectile function after surgery. If you have problems achieving erections before surgery, you are more likely to have problems with erections after surgery. There are factors that make erectile dysfunction more likely these include high blood pressure, diabetes, obesity, smoking and the extent of your cancer.

You should also be aware that following surgery if you are able to achieve orgasm, you will not ejaculate any semen, so you will be infertile. This is because you will no longer have a prostate gland, which produces the milky fluid that combines with your sperm to form semen.

## **What are the possible risks?**

Any radical prostatectomy is major surgery. Your consultant will discuss the risks listed below with you in more detail, but please ask questions if you are uncertain:

- Problems relating to the general anaesthetic: These include chest infection; deep vein thrombosis (DVT); a pulmonary embolus (blood clot in the lung); stroke; or heart attack. If you have any of these problems you may need to stay in the intensive care unit following your surgery and your recovery will be delayed.
- Infection or hernia can occur at the wound site.
- Blood loss: If the bleeding is severe you may need a blood transfusion or another operation. This occurs in only 2% of men undergoing the robotic-assisted approach.

- **Erectile dysfunction:** Some degree of erectile dysfunction is likely after any form of radical prostate surgery; however, in selected men the preservation of the neurovascular bundles improves the likelihood of recovering erections.
- **Urinary incontinence (inability to control when you pass urine):** All forms of prostate surgery result in some degree of urinary incontinence in the short term. By retraining the bladder and performing pelvic floor exercises continence can be recovered within a few weeks or months for most patients. However, depending on the extent of your cancer and other factors, it may take longer or the incontinence may be permanent. Men aged less than 65 years tend to recover their continence quicker than older men. You may need to wear pads (5-10% of patients continue to wear pads after one year) or have further surgery (1-2% of patients) to treat the problem.
- **Injury to your rectum:** Very rarely (<1%) there can be injury to your rectum (last section of your bowel) and you may need a temporary colostomy. This is where an opening is made in your large intestine and abdomen, so your stool is collected in a bag attached to the opening on your abdominal wall, bypassing your rectum.
- **Damage to structures inside the abdomen when the laparoscopic instruments are inserted:** The likelihood of this is minimised by inserting the telescopic instrument first. This is then used to help insert the other instruments, so their placement is more controlled.
- **Leakage of carbon dioxide gas (used during surgery) into tissues.** This should not cause any problems apart from pain in one or both shoulders, which disappears as the gas is reabsorbed by your body.
- **Neuropraxia:** Rarely patients may experience areas of skin numbness due to their position on the operating table. This usually resolves by itself within a few hours or days.
- **Delay in leaving hospital.** This is most commonly due to a pelvic haematoma (collection of blood) or a urine leak. A haematoma is managed by bed rest and possibly a blood transfusion. If the join between the bladder and the urethra is loose, it will leak urine that will be collected in the wound drain. This happens to less than 5% of patients, in which case, the drain is left in place for a few extra days until it stops leaking.
- **Death.** This is very rare – much less than 1% of patients having this operation die.

It is important to note that you may need further treatment, such as radiotherapy or hormonal therapy following surgery; if we find that the cancer has spread outside of your prostate. These findings are based on the final report from our pathologist (doctor who specialises in examining tissues under a microscope).

### **What happens before my operation?**

Before your operation you will attend an outpatient's appointment. . It is important that you attend this appointment. At this appointment you will need to fill out a 'Health Assessment Questionnaire'. The registered nurse in the clinic will discuss your general health and the answers you have provided in the questionnaire. You will need to attend the pre admission clinic for an appointment with the Anaesthetist.

You will be required to have routine blood tests and have an ECG tracing of the heart before your operation. Arrange to have these tests done a few days before you see the Anaesthetist at the Pre Anaesthetic Clinic.

At the Pre Anaesthetic Clinic the anaesthetist will review the results of your blood tests and your ECG; discuss with you your preferences and decide the type of anaesthetic which is best for you.

Please notify the anaesthetist and your surgeon if you are on any medications such as anticoagulants (blood thinning medications). You will be given instructions about stopping these medications before your operation and instructions about when you can start taking them again.

Your nurse specialist will discuss the details of the procedure with you before your operation. You may also be shown a video of the procedure if you wish.

If you smoke, you should try to stop before surgery. Smoking increases the risk of developing complications such as a chest infection following surgery. It can also delay wound healing. For help in giving up smoking, please speak to your nurse.

On the day of your surgery

- You must not eat or drink for 8 hours prior to going to the operating theatre for your operation.
- The nurses will advise you of the appropriate time to stop eating and drinking before your operation.

On arrival to the hospital you will be required to go to Patient Admissions and Registrations located on the ground floor. Following completion of your admission forms you will then be taken to the Day Surgery department located on Level One.

You will need to have an enema before your surgery. This is done to make sure your bowel is empty before your surgery, so you are not uncomfortable after the procedure. It also simplifies things if your bowel is affected during the surgery.

Once you have had the enema and opened your bowels you will be asked to shower and put on a clean gown and anti-thrombus stockings. Wearing the stockings helps to prevent blood clots forming in your legs (DVT) during surgery. You may take them off to shower during your hospital stay, but you must wear them at all other times to help reduce the risk of blood clots. You will be able to remove them when you go home from hospital.

You will need to be ready to go to the operating theatre at least one hour before the scheduled surgery time. You will go on your bed and when you arrive you will be taken to the anaesthetic room, where you will be seen by the anaesthetic nurse and doctors. They may put a drip into your arm or neck to allow them access to your veins during your operation to give you IV fluids and medications via the drip.

Once anaesthetised, you will be taken through to the operating theatre. The operation usually lasts two to four hours.

### **What should I expect after my surgery?**

You will be taken to the recovery room and remain there until the anaesthetic wears off. This may take an hour or two. You will then be taken back to your ward. On the day of the procedure, any friends and family members can wait in the day room on the ward where you will be staying following the operation and visit you there afterwards.

Your specialist will see you when you have returned to the ward after your nurse has settled you in.

You will wake up with:

- a catheter: this is a tube inserted into the bladder through your penis and is attached to a urine drainage bag. This will collect your urine so you will not need to get up and leave the bed to pass urine. A leg bag (portable urine drainage bag attached to your leg) will be fitted the next morning so you can get up and walk around. The catheter will be left in place for approximately 10 days following surgery to allow your wound between your bladder and urethra to heal.
- a drainage tube: this is a plastic tube that comes out from one of the small keyhole incisions. It prevents blood and urine collecting inside your wounds after surgery. It is normally removed the morning after surgery.
- stitches closing your wounds: these dissolve and do not need to be removed.
- dressings: the keyhole surgery sites are sprayed with a clear water proof dressing. You will be given small plasters to cover the sites if they are leaking. These plasters are generally removed 48 hours after surgery.
- a drip: to provide you with fluids to prevent dehydration. You will be able to start drinking clear fluids when you wake up from the anaesthetic. The drip is usually removed the day after your surgery.

Most men find they do not need strong pain relief after the operation. However you may have discomfort when bending at the waist and your scrotum or penis may be tender and swollen. Please let us know if you are in pain; we can give you medicine to help.

You will need to remain in bed for a couple of hours after the surgery. We will ask you to move your feet and ankles and wiggle your toes to help encourage circulation in your legs. Doing this will also reduce the risk of blood clots forming in your legs. You should be able to start sitting out of bed and getting up and walking around within a few hours.

### **Leaving hospital**

Most patients go home on the day after their surgery. You will be able to leave hospital the next day if:

- you can move around as well as you did before you came into hospital;
- you are able to care for your catheter and your leg bag; and
- your pain is well-controlled using the appropriate tablets taken by mouth (orally), when necessary.

Your prostate nurse specialist will make sure you have:

- an appointment date for you to have your catheter removed;
- an outpatient appointment for you to see your consultant's team about six weeks after your operation.
- PSA (prostate specific antigen) request form to have your PSA taken six weeks after your operation;

### **What can I expect when I get home?**

The most common complaint after surgery is tiredness. You should not forget that you have had major surgery. You will need to allow yourself time to recover before returning to your normal activities.

You may feel bloated and your clothes may feel a little tighter than usual. Wear loose clothing. Try to get some gentle exercise, try to walk around the house. This will help you to pass wind. If you have not had a bowel movement for a few days you may feel uncomfortable. Exercise such as walking will help to get your bowel moving again after your surgery.

You might find after the first few days that you notice some urine bypassing around the sides of your catheter. This is normal and may happen because your bladder is not used having the catheter tube in place and is irritated by it. If you become very uncomfortable, contact your prostate specialist nurse who will give you advice. You may also notice some blood leakage around the catheter when you first open your bowels after the procedure.

You will need to:

- carry out twice-daily catheter care to help reduce the risk of infection. We will show you how to do this before you leave hospital;
- eat a light, soft diet until your bowel movements are back to normal;
- take it easy. Do not lift anything heavy or do anything too energetic (for example, shopping, mowing the lawn, lifting weights or running) for at least two to four weeks after your surgery. Doing these types of things too soon may put too much strain on your stitches and make your recovery take longer.
- give yourself a couple of weeks rest before returning to work. If your work involves heavy lifting or exercise, please speak to your consultant.

Only start driving again when you are able to perform an emergency stop without feeling hesitant in doing so. Check with your insurance company to make sure you are covered to start driving again. Some pain medications cause drowsiness. If you are taking painkillers, please check with the pharmacist whether it is safe to drive.

### **Looking after your wounds**

When bathing or showering, rinse the soap thoroughly from your body. Not doing so may irritate your wounds. Keep your wounds clean and dry at all other times. Do not use lotions or creams on the wound sites whilst they are healing, doing so may cause irritation and increase the possibility of infection.

### **Your catheter removal**

Your catheter will be removed by a specialist nurse at your outpatient appointment approximately 10 days after your surgery. You will not see a doctor at this appointment. The specialist nurse will then monitor you for the next few hours to make sure you are able to pass urine. Removing the catheter is straightforward, so please do not worry.

- You may be given antibiotics at this appointment.
- The nurse will teach you how to do pelvic floor exercises
- The nurse will discuss penile rehabilitation at this appointment.
- You will receive a follow up phone call the next day to ensure you are passing urine.

It is normal to have some urinary incontinence after having the catheter removed. You will need to wear a pad for the first few months following removal of the catheter. Do not feel embarrassed, almost all patients have this experience.

You need to regularly practise your pelvic floor muscles. These exercises strengthen the muscles and help with regaining your continence. We recommend that you start the pelvic floor exercises as soon as your catheter is removed and repeat them every day. Your nurse will give you further advice to the frequency required.

Most patients are pad free by three months after their surgery and over 90% are pad free after a year. Rarely, some men never regain full control of their continence. If this happens to you, there are many ways to deal with this problem. Your surgeon or specialist nurse can discuss with you.

### **When can I have sex again?**

You may start sexual activity again two weeks after your operation, as long as you feel comfortable. You may not be able to achieve an erection in the early stages of your recovery, but you can experience arousal and even climax without an erection.

While you are recovering it will more difficult for you to have an erection than it was before your surgery. How difficult it will be will depend on many things such as:

- the extent of the cancer;
- how much of the prostate area and surrounding structures were removed during surgery; and
- whether or not your surgeon was able to spare the nerves.

Please make a note of any erections or feelings you have after the surgery and report them to your consulting team when you come to hospital for your follow-up appointment. We can offer you treatment, such as medication, to help restore your erectile function. We will start you on tablets to aid erections after your catheter is removed.

Your penis may look shorter following surgery because once the prostate has been removed the urethra will be shorter. The urethra is quite elastic and can be stretched out by exercising the penis. This will help restore the length. Please speak to your nurse specialist for more information.

### **Contact information**

If you or your family have any questions or concerns after returning home, please use the contacts listed below.

Ward 3: 9656 1033

Monday - Friday 8.00 am - 5.00 pm

Urology Surgical Registrar via switchboard 9656 1111 or

Urology Nurse Coordinator: 9656 1111 pager 7406.

After hours contact the Patient Service Manager via switch 9656 1111 or contact the Royal Melbourne Hospital Emergency Department

If you feel there are some questions that should be placed on this information leaflet, please let us know or fill in a comment sheet before being discharged.